

STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION

At a session of the Public Service  
Commission held in the City of  
Albany on June 11, 2026

COMMISSIONERS PRESENT:

Rory M. Christian, Chair  
James S. Alesi  
David J. Valesky  
John B. Maggiore  
Uchenna S. Bright  
Denise M. Sheehan  
Radina R. Valova

CASE 26-E-0335 - Proceeding on Motion of the Commission to  
Implement a Nuclear Reliability Backbone.

ORDER ESTABLISHING A NUCLEAR RELIABILITY BACKBONE PROCESS

(Issued and Effective June 11, 2026)

BY THE COMMISSION:

INTRODUCTION

New York State and the Public Service Commission (Commission) have a long history of supporting the development of electric generation resources that ensure the continued safe and reliable operation of the electric grid and support the achievement of state environmental, public health, clean energy, and economic policy goals. Across numerous proceedings, the Commission has acted to advance the development of both large and small-scale clean energy resources alongside energy storage and bulk and local transmission investments to enable the modernization of our energy system. Existing nuclear energy facilities are one of many resources the Commission has supported as part of an all-of-the-above approach to meeting both the State's energy needs and statutory objectives in the

most fair and cost-effective manner. With the changing energy demands of our state, and our clean energy priorities, the Commission must now consider the development of new nuclear energy to continue to ensure it meets its core obligation of providing a safe, reliable, and cost-effective electric system to all New Yorkers.

In her 2026 State of the State address, Governor Hochul identified the need to consider a Nuclear Reliability Backbone, including a new process led by the Department of Public Service (DPS) to consider, review, and facilitate a cost-effective pathway to 4 gigawatts (GW) of new "advanced nuclear" energy for New York.<sup>1</sup> This announcement followed the Governor's directive to the New York Power Authority (NYPA) in June 2025 to develop and construct an advanced nuclear power plant in upstate New York capable of generating at least 1 GW of zero-emissions electricity. These two initiatives, totaling 5 GW, coupled with New York's existing 3.4 GW of nuclear generation assets, would result in 8.4 GW of clean, reliable, baseload power to support millions of New Yorkers across the State. This generation, combined with the necessary transmission facilities, would comprise the "Nuclear Reliability Backbone."

The Nuclear Reliability Backbone was conceptualized using insights from various State grid planning and modeling efforts, including the Coordinated Grid Planning Process (CGPP)<sup>2</sup>

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<sup>1</sup> The term advanced nuclear refers to a range of newer designs that improve on conventional reactors through features such as passive or inherent safety systems, modular construction, alternative coolants, and operational versatility. This includes both designs that are typically categorized as Generation III+ and Generation IV.

<sup>2</sup> Case 20-E-0197, Transmission Planning Pursuant to the Accelerated Renewable Energy Growth and Community Benefit Act, Order Approving a Coordinated Grid Planning Process (issued August 17, 2023).

and the State Energy Plan (SEP),<sup>3</sup> which point to nuclear as a valuable resource on New York's future least-cost grid, consistent with the goals set out in the Climate Leadership and Community Protection Act (CLCPA or Climate Act).<sup>4</sup> Results from the CGPP and SEP also demonstrate that new nuclear generation development (herein after referred to as "new nuclear") would offer significant land-use benefits across the State. Moreover, these modeling efforts underscore the need to coordinate any new nuclear generation with adequate transmission that is capable of moving energy to load pockets throughout the State.

The Commission hereby initiates a proceeding to evaluate the development of a Nuclear Reliability Backbone, including the potential mechanisms for integrating new nuclear timely, cost-effectively, and with maximum benefits to New York's electric grid and ratepayers. Importantly, the Commission notes that the New York State Energy Research and Development Authority (NYSERDA) and DPS staff are separately filing the New York State's Advanced Nuclear Policy Options Paper (Options Paper), which was developed as part of the Master Plan for Responsible Advanced Nuclear Development in New York

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<sup>3</sup> New York State Energy Planning Board, 2025 New York State Energy Plan, (SEP) available at: <https://energyplan.ny.gov/Plans/2025-Energy-Plan>.

<sup>4</sup> See Chapter 106 of the Laws of 2019 (codified, in part, in Public Service Law (PSL) §66-p). The CLCPA became effective on January 1, 2020, and includes various targets such as generating 70% of electricity from renewable energy systems by 2030; a "statewide electrical demand system" that will be "zero emissions" by 2040 (Zero by 40); and an 85% reduction of economy-wide greenhouse gases, as compared to 1990 levels, by 2050. The Fiscal Year 2026-2027 Enacted Budget adopted changes to the greenhouse gas emissions targets of the CLCPA but did not modify the energy sector targets.

(Advanced Nuclear Master Plan).<sup>5</sup> The Options Paper, which we anticipate will be filed contemporaneously with this Order, evaluates policy mechanisms to support new grid-scale advanced nuclear projects, assessing barriers to commercial viability, risk management, potential financial support and funding thereof, technology selection and procurement approaches that can enable project viability while minimizing costs and risks to the public. This Order requests stakeholder feedback on issues related to the development of a Nuclear Reliability Backbone, including the need, grid impacts, technology selection, project financing, and cost-effective site selection for transmission and generation.

#### BACKGROUND

On June 23, 2025, Governor Hochul directed NYPA to develop and construct a zero emissions advanced nuclear power plant in upstate New York to support a reliable and affordable grid while providing the emissions-free electricity necessary to achieve a clean energy economy. The Governor's directive cited the need for new, clean electricity to accommodate economic growth and fossil fuel plant retirements, while meeting growing demand from electric vehicles, building electrification, and industrial development. In coordination with DPS, NYPA must develop at least one nuclear facility with at least 1 GW of capacity, either alone or in partnership with private entities. This effort is intended to complement New York's ongoing deployment of renewable energy by adding zero emissions baseload power to the energy mix, increasing reliability and

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<sup>5</sup> See New York State Energy Research and Development Authority, Advanced Nuclear Energy (accessed June 5, 2026), available at: <https://www.nyserda.ny.gov/All-Programs/Advanced-Nuclear-Energy>.

affordability while advancing the achievement of Climate Act goals.

The initial 1 GW project by NYPA will serve as the first step in procuring new nuclear generation to support a Nuclear Reliability Backbone. The directive includes requirements for NYPA to evaluate technologies, business models, and locations, and the process must include site and technology feasibility assessments and financing options, as well as coordination with NYSERDA- and DPS-led studies, such as the Advanced Nuclear Master Plan. The 1 GW announcement builds on regional momentum to strengthen nuclear supply chains, share best practices, and support the responsible deployment of advanced nuclear. There are also several reinforcing workstreams that relate to the development of a Nuclear Reliability Backbone, such as the Zero by 40 process, Zero by 40 Technoeconomic Assessment, State Energy Plan, Coordinated Grid Planning Process, Clean Energy Zones initiative, and the Advanced Nuclear Master Plan, which are all described in more detail below.

Clean Energy Standard and Zero by 40 Target

The CLCPA designates the Commission with the responsibility for developing a program designed to meet certain electric sector targets for renewable energy and decarbonization. In 2016, the Commission established the Clean Energy Standard to increase the State's renewable energy supply and to preserve New York's existing zero-emissions nuclear generation.<sup>6</sup> Following enactment of the CLCPA, the Commission modified the Clean Energy Standard to align with the renewable

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<sup>6</sup> Case 15-E-0302, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Energy Program and Clean Energy Standard, Order Adopting a Clean Energy Standard (issued August 1, 2016) (2016 CES Order).

energy and zero emission targets in the CLCPA.<sup>7</sup> On May 18, 2023, the Commission initiated a process focused on the CLCPA's Zero by 2040 power sector target to design a pathway that achieves this statutory target while maintaining safe, reliable, and affordable electric service. (Zero by 40 process).<sup>8</sup> As part of this process, DPS staff and NYSERDA contracted with the Electric Power Research Institute (EPRI) to research candidate technologies in depth in order to assess their techno-economic potential and to identify key hurdles to their deployment.

Zero by 40 Technoeconomic Assessment

In 2025, EPRI and NYSERDA authored a technoeconomic assessment to evaluate technologies that could help New York reach its 2040 emissions reductions target (0x40 Assessment).<sup>9</sup> Their findings identify how early planning and regulatory engagement around new nuclear could enable the deployment of multiple reactors that serve as a baseload resource in a zero emissions grid. The 0x40 Assessment found that the characteristics of nuclear generation with its high energy density and capacity factor could complement the use of intermittent renewable resources and reduce reliance on costly gas-fired peaking generation. These findings were foundational for the consideration of nuclear generation in the CGPP and SEP.

State Energy Plan

Several of the State's planning efforts also provide valuable insights into the potential benefits and necessity of a

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<sup>7</sup> Case 15-E-0302, supra, Order Adopting Modifications to the Clean Energy Standard (issued October 15, 2020) (CES Modification Order).

<sup>8</sup> Case 15-E-0302, supra, Order Initiating Process Regarding Zero Emissions Target (issued May 18, 2023).

<sup>9</sup> Case 15-E-0302, supra, Zero-x-40 Technoeconomic Assessment Report (filed October 22, 2025) (Zero by 40 Technoeconomic Assessment).

Nuclear Reliability Backbone, particularly as it relates to the reliability of our energy system. The SEP modeled multiple scenarios to show future energy pathways for New York. The Pathways Analysis in the SEP explored how the State's energy supply and delivery systems will meet forecasted needs through 2040 and beyond using the evaluation of five scenarios, namely: (1) No Action; (2) Current Policies; (3) Additional Action; (4) Net Zero A; and (5) Net Zero B. New nuclear was included as a candidate resource in each of these scenarios, with new nuclear capacity being selected by the model if found to be economic.

Across these scenarios, the analysis found that new nuclear can support a zero-emissions grid and demonstrates that the availability of nuclear resources helps to lower system costs compared to a sensitivity where no new nuclear is available. Furthermore, the analysis indicates that new nuclear could be an attractive solution to support a zero-emissions electric grid alongside renewables and storage, accompanied by additional transmission to deliver part of its power to meet downstate load.

#### Coordinated Grid Planning Process

The CGPP, New York's long-term transmission and distribution planning initiative, has identified nuclear generation as a key part of the most cost-effective solution to meet New York's future energy needs.<sup>10</sup> Additionally, the process would support the Nuclear Reliability Backbone through the identification of new transmission and distribution upgrades to bring the energy generated at new nuclear sites to the load centers where it is needed most. The capacity expansion model run as a part of the CGPP optimizes the most economic, reliable, and CLCPA compliant generation mix for New York State and

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<sup>10</sup> Case 20-E-0197, supra, Coordinated Grid Planning Process: Cycle 1 Report, p. 48 (filed May 4, 2026).

included a scenario (CGPP Scenario 2) that allowed the model to select nuclear energy as a candidate resource.

Under this scenario, the capacity expansion model selects to build 5 GW of new nuclear, a result driven by the low operating cost of the resource, the ability to provide a significant portion of energy needs, extremely low land use intensity, and a high firm capacity as a percentage of nameplate capacity. As a result, the total amount of additional large-scale renewable energy resources required to achieve policy targets is dramatically reduced as compared to the scenarios with no new nuclear. Relatedly, this scenario also reduces the need for new local transmission as compared to other scenarios. Importantly, additional dispatchable resources beyond new nuclear are still required to provide daily cycling to match load and maintain reliability. Without the option to select new nuclear, the model shows a significant need for new energy generation, capacity, transmission, and as a result, additional land use, as early as 2035.

#### Advanced Nuclear Master Plan

In addition to the above energy planning efforts, NYSERDA and DPS staff are also leading the development of the Advanced Nuclear Master Plan, a comprehensive evaluation of best practices and opportunities in nuclear development organized into studies covering regulatory and safety issues, siting, waste, supply chain and workforce, research and development, and fusion. As discussed above, as part of the Advanced Nuclear Master Plan, DPS staff and NYSERDA have developed an Advanced Nuclear Policy Options Paper, which is expected to be filed contemporaneously in this proceeding. The Advanced Nuclear Master Plan is expected to conclude with full publication by the end of 2026. Three Advanced Nuclear Technical Working Groups (TWGs) in workforce and supply chain, research and development,

and fusion were established to inform studies within the Advanced Nuclear Master Plan. These TWGs will evaluate challenges to advancing nuclear energy development and help to inform and shape best practices in these topical areas.

#### Clean Energy Zones

Additionally, the Commission is advancing the Clean Energy Zones (CEZ) initiative, which seeks to coordinate clean energy and grid infrastructure development to maximize efficiency and reduce ratepayer cost while enabling further community benefits and engagement. DPS staff filed its White Paper on Clean Energy Zones Program on May 15, 2026, which explores ways to better coordinate investment in clean generation and transmission in areas of the State experiencing current or planned load growth, or those areas otherwise well-suited for energy infrastructure investments, while streamlining and prioritizing community engagement and collaboration.<sup>11</sup> The White Paper seeks stakeholder input on two potential approaches to a CEZ program in New York.

#### New York State's Existing Zero Emission Credit (ZEC) Program

The Commission has also taken action to preserve the State's existing nuclear fleet. On January 22, 2026, the Commission extended the Zero Emission Credit (ZEC) program through 2049.<sup>12</sup> The extension will provide New York's existing nuclear fleet with the financial stability needed to continue operating and providing zero-emission generation to the State. The 2025 New York State Energy Plan's Pathways Analysis concluded that the retirement of these plants at the expiration of their operating licenses would result in a decrease in

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<sup>11</sup> Case 15-E-0302, Clean Energy Standard, White Paper on Clean Energy Zones Program (filed May 15, 2026).

<sup>12</sup> Case 15-E-0302, Clean Energy Standard, Order Extending Zero-Emissions Credit Program (issued January 22, 2026).

nuclear generation capacity by 1,201 megawatts (MW) in 2030 and 2,033 MW in 2040, likely contributing to greater reliance on fossil generation while exposing the State to greater energy price volatility, reduced system diversity, and increased energy security concerns.<sup>13</sup> The extension of this program underscores the State's commitment to supporting the safe operation of these resources as we pursue a clean, reliable grid.

#### LEGAL AUTHORITY

The Commission's authority derives from the New York State Public Service Law (PSL), through which numerous legislative powers are delegated to the Commission. Pursuant to PSL §5(1), the "jurisdiction, supervision, powers and duties" of the Commission extend to the "manufacture, conveying, transportation, sale or distribution of ... electricity." PSL §5(2) requires the Commission to "encourage all persons and corporations subject to its jurisdiction to formulate and carry out long-range programs, individually or cooperatively, for the performance of their public service responsibilities with economy, efficiency, and care for the public safety, the preservation of environmental values and the conservation of natural resources."

PSL §66(2) provides that the Commission shall "examine or investigate the methods employed by [] persons, corporations and municipalities in manufacturing, distributing and supplying ... electricity ... and have power to order such reasonable improvements as will best promote the public interest, preserve the public health and protect those using such ... electricity ...." Further, PSL §65(1) provides the Commission with authority to ensure that "every electric corporation and every

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<sup>13</sup> 2025 SEP, Volume II, Plan Analyses and Impacts, Pathways Analysis.

municipality shall furnish and provide such service, instrumentalities and facilities as shall be safe and adequate and, in all respects, just and reasonable."

The Commission also has authority to prescribe the "safe, efficient and adequate property, equipment and appliances thereafter to be used, maintained and operated for the security and accommodation of the public" whenever the Commission determines that the utility's existing equipment is "unsafe, inefficient or inadequate."<sup>14</sup> PSL §66(3) further empowers the Commission to "[p]rescribe from time to time the efficiency of the electric supply system." PSL §4(1) also expressly provides the Commission with "all powers necessary or proper to enable [the Commission] to carry out the purposes of [the PSL]" including, without limitation, a guarantee to the public of safe and adequate service at just and reasonable rates,<sup>15</sup> environmental stewardship, and the conservation of resources.<sup>16</sup> Thus, the Commission may exercise this broad authority to direct regulatory standards to execute the provisions contained in the PSL.

#### DISCUSSION

Nuclear power has provided firm, reliable, zero-emissions electricity in New York for more than half a century, with the first facilities commencing operation in the 1960s.

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<sup>14</sup> PSL §66(5).

<sup>15</sup> See International Ry. Co. v. Public Service Com., 264 A.D. 506, 510 (3d. Dep't 1942).

<sup>16</sup> PSL §5(2); see also, Consolidated Edison Co. v. Public Service Commission, 47 N.Y.2d 94 (1979) (overturned on other grounds) (describing the broad delegation of authority to the Commission and the Legislature's unqualified recognition of the importance of environmental stewardship and resource conservation in amending the PSL to include §5).

The State's four operating reactors - R.E. Ginna, Nine Mile Point 1, Nine Mile Point 2, and James A. FitzPatrick - produce approximately 27.5 terawatt hours (TWh) of electricity a year, accounting for more than 20% of New York's electricity generation and 40% of its carbon-free power. All four facilities operate at well over a 90% capacity factor, typically pausing generation only during refueling activities. Together, the four operating reactors avoided 16.4 million tons of carbon dioxide emissions in 2024. Preserving these existing facilities as the 3.4 GW foundation of the Nuclear Reliability Backbone is critical to meeting the state's current energy and decarbonization needs, but those needs are rapidly changing and new resources will be required to maintain system reliability and affordability. New York is entering a period of substantial load growth driven by the electrification of our economy, new economic development projects, and increased multi-sector demand for electricity, and as a result, new firm, dispatchable generation resources are needed to complement renewable energy deployment and meet this growing demand.

While only two new nuclear reactors, Vogtle Units 3 and 4, located in Waynesboro, Georgia, have been constructed in the United States in the past decade, multiple jurisdictions are now evaluating sites for new nuclear development, in part due to its characteristics as an asset with a high capacity factor and long life. In fact, New York is home to some of the longest operating facilities in the country, with the Nine Mile Point Unit 1 facility recently submitting a subsequent license renewal application to the NRC to continue operating for up to 80

years.<sup>17</sup> Nuclear power is particularly compelling in areas with ambitious emissions targets and load growth, as it is one of the few commercially available, firm, zero-emission resources available today. Furthermore, nuclear energy has the highest energy density and lowest land use intensity of any electricity production source.<sup>18</sup>

The interaction with federal agencies will be an important component of any future nuclear development within New York State. Under the Atomic Energy Act (AEA), regulation of nuclear energy is governed between federal and state entities. The Nuclear Regulatory Commission (NRC) regulates the radiological safety, operational, and site-specific aspects of nuclear facilities. The states retain jurisdiction over issues beyond the scope of NRC's authority, such as, but not limited to, questions about rates, costs, or economics.<sup>19</sup>

Additionally, the State maintains a critical role with respect to potential sites, safety, and transmission development in support of new nuclear facilities. Safety will be a particular focus of the Commission's ongoing technology evaluation as there may be less experience with new technology than existing facilities, with potentially novel considerations. Regardless of the technology or any changes to federal

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<sup>17</sup> See Nuclear Regulatory Commission, Constellation Energy Generation, LLC, Nine Mile Point Nuclear Station, Unit 1, Subsequent License Renewal Application, NRC-2021-0082 (filed April 29, 2026).

<sup>18</sup> See Lovering, Jessica, et al., Land-use intensity of electricity production and tomorrow's energy landscape, National Center for Biotechnology Information (July 2022), available at: <https://pmc.ncbi.nlm.nih.gov/articles/PMC9258890/>.

<sup>19</sup> See 42 U.S.C. §2021(k) (AEA savings provision); Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n, 461 U.S. 190, 205 (1983).

permitting and review, the Commission will maintain the highest standards for safety in the development of a Nuclear Reliability Backbone.

While the Advanced Nuclear Master Plan process is examining regulatory and safety issues in depth, the Commission will prioritize community engagement and community support in the development of the Nuclear Reliability Backbone. The Commission directs DPS staff to, at a minimum, extend the consideration of Disadvantaged Communities present within the CGPP to future efforts under the Nuclear Reliability Backbone process, consistent with the requirements of the CLCPA.

New York's existing nuclear facilities have provided numerous economic benefits to the State, including a high concentration of well-paying jobs and direct and indirect benefits to host communities from construction through operation. Deployment of new facilities could strengthen the nuclear ecosystem, providing a pipeline of skilled workers across the industry to reinforce the existing workforce. Further, these efforts would support the workforce development and just transition goals within the Climate Act.<sup>20</sup>

Along with a pipeline of skilled staff, nuclear facilities also rely on a global supply chain of specialized equipment and materials for construction and operation. While there are some risks associated with global competition and availability of materials, particularly fuel sources, New York has the opportunity to build consistent demand for certain components while also developing in-state capacity for supply chains that could benefit the State's economy for decades to come.

As an early mover on advanced nuclear, New York will potentially also have the advantage of leveraging in-state

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<sup>20</sup> Environmental Conservation Law §75-0103(8)(a)-(f).

workforce and supply chain capabilities to future nuclear developments in the region and across the country, which could serve as a significant economic development opportunity over the next 25 years or more. The Nuclear Master Plan is expected to advance these ideas further and provide further analysis on workforce and supply chain opportunities and recommendations for how to pursue them.

#### Nuclear Reliability Backbone

The Final SEP modeling carried out detailed analysis to compare scenarios with and without new nuclear, using the evaluation of the five scenarios mentioned above. New nuclear was included as a candidate resource in each of these scenarios, with new nuclear capacity being selected by the model if found to be economic. The Current Policies and Additional Action scenarios included variants and the associated transmission needs. These pathways included the option for the model to build up to 2.2 GW (Current Policies) and 3.3 GW (Additional Action) of new nuclear by 2040. Across the variants and based on its least-cost optimization approach, the model chose to build the maximum amount of nuclear allowed by 2040 with additional builds in the 2040s reaching between 4.8 and 5.6 GW of new nuclear by 2050, coupled with new transmission. Though the timing of the building of the transmission and the number of accompanying renewables built varied, new nuclear paired with transmission enhancements proved to be an important component in the mix of generation resources to meet policy goals at least cost in all pathways. With the inclusion of new nuclear, the analysis estimated a reduced system cost of \$28-31B compared to the core cases in 2040, growing to \$47-54B by 2050. The analysis also saw the elimination of the need for 15 TWh of gas generation in 2040 that was retained in the Draft SEP results under realistic but constrained renewable deployment assumptions

with no nuclear additions.<sup>21</sup> This reduction in fossil fuel use is equivalent to roughly 25% of the State's current annual fossil fueled generation.<sup>22</sup> The results also indicate that new nuclear can support a zero-emissions grid and demonstrate that the availability of nuclear resources helps to lower system costs compared to a sensitivity where no nuclear is available. Furthermore, the analysis indicates that new nuclear can be a solution to support a zero-emissions electric grid alongside renewables and storage, accompanied by additional transmission to deliver part of its power to meet downstate load.

Additional modeling completed as part of the CGPP shows that the deployment of 5 GW of new nuclear power in New York could eliminate the need to overbuild the quantity of new renewable resources to meet the State's clean energy goals by approximately 20 GW, while eliminating the need for 3 GW of transmission investments.

These savings result in a lower total cost of policy achievement, while lowering statewide emissions and dramatically reducing fossil fuel use. A reduction in total capacity needs also reduces the total energy-specific land-use requirements by over 200,000 acres (not including energy storage or transmission siting), which is an area larger than the footprint of the five boroughs of New York City. Lowering the total number of projects that must be deployed to advance progress towards the CLCPA targets also improves the feasibility of achieving the State's decarbonization goals. In short, there are significant

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<sup>21</sup> State Energy Planning Board Meeting Presentation (June 25, 2025), p. 23, available at <https://energyplan.ny.gov/-/media/Project/EnergyPlan/files/BoardMeetingSlides-62525-FINAL.pdf>.

<sup>22</sup> NYISO Gold Book, p. 103, available at <https://www.nyiso.com/documents/20142/2226333/2026-Gold-Book-Public.pdf/a8fd42fe-5a8c-88cb-5052-f93dfd6423b8>.

potential environmental, health, cost, and timeliness benefits that have been identified related to the deployment of nuclear energy relative to the alternative generation options under all scenarios.

Preliminary estimates from CGPP and SEP show that strategic transmission investments paired with new nuclear generation could save ratepayers tens of billions of dollars as compared to scenarios without nuclear deployment. In both the CGPP and SEP modeling, the optimal energy system buildout included an expansion of the existing transmission system to provide additional capacity into the downstate region, particularly into NYISO Zone J. Specifically, given the additional constraints and challenges in terms of both decarbonization and reliability in New York City, as well as the space and grid limitations within Zone J, transmission to deliver clean reliable power into New York City provides significant value to ratepayers and the electricity system.

For these reasons, the Commission recognizes that corresponding transmission investments should be considered through ongoing work in the CGPP to advance strategic investments, including new nuclear generation, that delivers clean, firm power across the State. Coordination between the Nuclear Reliability Backbone, the CGPP's transmission-related investments, and the CEZ initiative will be necessary to ensure the most cost-effective and timely outcome for the State's clean energy policy goals.

Within the proposal for a CEZ program, DPS staff recommend that the designation of a CEZ should also consider the investments and commitments already pursued through various State programs to streamline statewide planning and development efforts. This would include the Nuclear Reliability Backbone, which could overlap with renewable deployments in numerous ways

and can provide complementary value to the energy system by providing baseload generation alongside large quantities of intermittent renewables. By coordinating new investments through the CEZ program, the State could maximize the significant benefits of CEZs.

The Commission acknowledges the work already underway through the CGPP which has considered potential pathways for nuclear and transmission deployment in New York over the next twenty years. We expect these findings and future efforts in the CGPP to inform policy, strategy, and investments related to a Nuclear Reliability Backbone. For example, the first cycle of the CGPP provides results for a scenario that advances 5 GW of new nuclear generation, including optimal generation and transmission buildouts under prevailing conditions and forecasts. These results can serve as a starting point to review the full set of considerations related to a Nuclear Reliability Backbone.

#### Funding and Financing Opportunities and Approaches

Funding through the Department of Energy's Office of Energy Dominance Financing (EDF) has the potential to cover up to 80% of advanced nuclear deployment costs of initial projects through low-cost, long-term debt with favorable terms, including interest capitalization and credit support. Additional New York State support mechanisms such as grants, equity, and a cost overrun guarantee could enhance project creditworthiness and access to EDF financing. Currently, nuclear power plants also have access to tax credits through the Inflation Reduction Act.<sup>23</sup> To access the full credits, facilities must begin construction

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<sup>23</sup> The Inflation Reduction Act of 2022 created a new federal tax credit under section 45U of the tax code for electricity produced at existing nuclear facilities; 26 U.S.C. §45U.

by 2034, before credits phase out over the subsequent three years.

The question as to who should own new nuclear projects is an open issue that requires careful consideration. New York State has an established history of looking to the private sector to own and develop generation resources. At the same time, the magnitude of the Nuclear Reliability Backbone process is of a scale where the State has a compelling interest in ensuring that all efficiencies of financing, coordinated planning, and risk management are brought to bear.

Through this proceeding, the Commission seeks to evaluate the costs and revenue opportunities of new nuclear plants, building on the work of the 0x40 Assessment and SEP, to determine potential funding needs and pathways. Should new State support be required, new funding sources or programs may be necessary as current clean energy program funding sources may not fit this purpose.

#### Technology Choice, Deployment Timeframe, and Sequencing

The lack of consistent industry demand and development for large-scale nuclear reactors in the United States has led to high construction costs and long lead times for project deployment. Advanced large light water reactors (LLWRs) are the most prevalent technology deployed across the U.S. and can take up to 12 years to deploy.<sup>24</sup> Other technologies, such as light water small modular reactors (lwSMRs) and non-water-cooled reactors, have only been deployed in limited examples outside of the U.S. While lwSMRs are more mature than non-water-cooled reactors because they leverage widely deployed light water technologies, both lwSMRs and non-water-cooled reactors face higher cost uncertainties and longer lead times than LLWRs.

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<sup>24</sup> Zero by 40 Technoeconomic Assessment, p. 144.

Whether New York State chooses to deploy advanced LLWRs, lwSMRs, or a combination of technologies, early, ongoing, and thorough planning will be essential for successful realization of the nuclear resources. The Nuclear Reliability Backbone process will evaluate various technologies and how such technologies should be considered regarding the pace of procurement and deployment. Focusing on a small number of technologies may allow the best realization of cost reductions from economies of scale and learning. Selecting more mature technologies could reduce project risk, while selecting more innovative technologies may bring greater opportunity for meaningful cost reduction. Thus, the composition of the portfolio of nuclear technologies requires continued and careful attention and nuclear technology selection will be a core consideration prior to advancing a safe, cost-effective, and timely build out and grid integration of New York's nuclear fleet.

Given the extended timelines for nuclear deployment and the need to coordinate with transmission investments to maximize value to the State, early planning is required to successfully deploy a Nuclear Reliability Backbone. The next well-planned and executed LLWR project could take 10-12 years to deploy, including four to five years for planning and six to seven years for construction and commissioning. However, federal intervention to streamline permitting could shorten these timelines. In addition, deploying new reactors at or near existing nuclear sites, including deploying multiple reactors at a given site, could also reduce near-term project timelines, as well as project costs. The preexisting infrastructure, site attributes, and the existence of established safety and similar procedures could avoid the expense and time to build these anew.

As the industry matures, future builds could benefit from lessons learned in earlier projects, and later project timelines could approach eight to nine years. Some lwsMRs and non-water-cooled reactors may have shorter project lead times due to factory fabrication and design simplification, but significant uncertainty remains in these timelines.

Taking these considerations into account, current analyses indicate that one to two new gigawatt-sized nuclear plants could be online by 2040, or potentially even more if multiple technologies were to be deployed in parallel; with additional deployments continuing between 2040 and 2050. Transmission planning processes will incorporate this scenario to ensure timely deployment of infrastructure, and the CEZ process could evaluate the opportunity for nuclear power hubs to serve as the anchor of future CEZs. These processes should also continue to evaluate generation and reliability considerations in the near- and mid- term.

#### Stakeholder Feedback

The Commission is seeking feedback from stakeholders on the Nuclear Reliability Backbone concept as discussed in this Order. Stakeholders are encouraged to provide comments by August 10, 2026, organized by the following questions and topics:

##### Coordination and Approach

1. What are the key considerations for developing a safe, cost-effective, and timely Nuclear Reliability Backbone into the State's electric grid?
2. How should the Nuclear Reliability Backbone initiative engage with other proceedings underway before the Commission?

3. How should transmission, non-nuclear generation, and nuclear procurements be coordinated to maximize ratepayer benefits in the State?

Financing and Commercial Viability

4. What are the barriers to the commercial viability of advanced nuclear deployment?
5. What intervention options may best overcome the barriers to the deployment of advanced nuclear? Specifically:
  - a. Are construction cost risk and construction-stage equity availability key financing constraints? How should construction cost risk be shared between developers, technology providers, Engineering, Procurement, and Construction contractors, offtakers, private sector equity investors, insurers, and the State and federal government?
  - b. What risks and opportunities arise from potential involvement of State equity as part of the business model?
  - c. What are the appropriate financial mechanisms of State support for new advanced nuclear development? What are the appropriate levels of such support? What forms of pre-FID (final investment decision) government support would be most valuable or appropriate?
6. What considerations are most relevant to the question of ownership model, in best deploying a Nuclear Reliability Backbone for the benefit of New Yorkers?
7. What considerations are most relevant to the question of risk management, given the objective of protecting New York's ratepayer while delivering a safe, timely, and customer-benefitting Nuclear Reliability Backbone? Which

risks are most critical, and which management and risk allocation mechanisms can be most helpful?

8. What considerations are most relevant to the question of contracting with large loads as off-takers, in achieving cost-effectiveness, timeliness, grid integration, and risk management?

Nuclear Pipeline and Sequencing

9. What are the approaches that New York should pursue in terms of designing, sequencing, and technology choice to deploy a Nuclear Reliability Backbone?

Procurement

10. What considerations are most relevant to the question of procurement mechanism, in achieving cost-effectiveness, timeliness, grid integration, and risk management?
11. What procurement mechanisms should the State pursue in the development of a Nuclear Reliability Backbone? How should the State balance the considerations of a competitive solicitation process as compared to a competitive negotiation, the role of a pre-qualification process, and any eligibility issues?

Next Steps in the Proceeding

The Commission intends to follow a methodical and reasoned approach to the development of a Nuclear Reliability Backbone in New York. This proceeding will seek to develop a cost-effective approach to developing a resilient and flexible zero-emissions grid supported by new advanced nuclear and transmission infrastructure, and will be informed by the SEP, the CEZ Process, the CGPP, the Nuclear Master Plan, NYPA Nuclear Power development, as well as by input from stakeholders, including both comments in response to this Order and at least one technical conference to be convened by DPS staff and NYSERDA before October 31, 2026. Furthermore, proposed investments

under CGPP and other proceedings will be reviewed for support and consistency with the Nuclear Reliability Backbone.

The Commission directs DPS staff, within five months of the effective date of this Order, to file a white paper that considers stakeholder feedback and provides the following information:

- How the proceedings mentioned above will support the development of a Nuclear Reliability Backbone, with particular focus on CGPP investment options and NYPA's ongoing nuclear development work.
- How current and ongoing investments in generation and transmission can support the development of a Nuclear Reliability Backbone.
- How options identified in the DPS staff and NYSERDA Options Paper, and additional options as may be received through stakeholder feedback, will support the funding, sequencing, and management of risks and costs of developing a Nuclear Reliability Backbone.

#### CONCLUSION

This Order acknowledges the value that clean firm nuclear power can provide to New York State, particularly when paired with transmission to deliver power to load centers, and accordingly initiates the Nuclear Reliability Backbone Proceeding, and seeks stakeholder feedback while directing future work from DPS staff to advance the development of a Nuclear Reliability Backbone.

#### The Commission orders:

1. A proceeding is instituted to consider the development of a Nuclear Reliability Backbone.

2. Interested stakeholders shall file in Case 26-E-0335, by August 10, 2026, initial comments on the issues presented in this Order, including the questions posed in the body of this Order.

3. Department of Public Service staff and the New York State Energy Research and Development Authority shall convene at least one public technical conference before October 31, 2026, as discussed in the body of this Order.

4. Department of Public Service staff shall prepare a white paper addressing the issues and policy options considered in this proceeding, for filing no later than November 13, 2026. The white paper shall be informed by the technical conference directed in Ordering Clause 3, address the comments received in the responses to Ordering Clause 2, and contain recommendations for the Commission's consideration.

5. In the Secretary's sole discretion, the deadlines set forth in this Order may be extended. Any request for an extension must be in writing, must include a justification for the extension, and must be filed at least three days prior to the affected deadline.

6. This proceeding is continued.

By the Commission,

(SIGNED)

MICHELLE L. PHILLIPS  
Secretary